EPA FINAL AUDIT DATA

HAMILTON TOWNSHIP

WASTEWATER

COLLECTION

SYSTEM

FOR

HAMILTON TOWNSHIP MUNICIPAL AUTHORITY FRANKLIN COUNTY PENNSYLVANIA

EPA GRANT NO. C-420916-01

ARROWOOD, INCORPORATED CONSULTING ENGINEERS CHAMBERSBURG, PENNSYLVANIA

HAMILTON TOWNSHIP MUNICIPAL AUTHORITY WASTE WATER COLLECTION SYSTEM

Index

I. EXHIBIT A

- 1. Form 271 Outlay Report and Request for Reimbursement
- 2. Payroll Certification/Anti-kickback Statement
- 3. Statement of Project Completion

II. EXHIBIT B

- 1. Itemized Summary and Calculation of Eligible Costs
 - Construction Costs
 - Technical Services Costs
 - Legal and Fiscal Costs
 - Administrative Costs
- 2. Itemized List of Other Technical Services

III. EHXIBIT C - CONSTRUCTION

- 1. Contract No. Alternate No. 1 The Gerl Construction Company
 - a. Exhibit C (1): Construction Contracts
 - b. Exhibit C (2): Contract Change Orders
 - c. Final Application for Payment
 - d. Copies of Change Orders
- 2. Contract No. 5, Alternate No. 5B Conewago Contractors, Incorporated
 - a. Exhibit C (1): Construction Contracts
 - b. Exhibit C (2): Contract Change Orders
 - c. Final Application for Payment
 - d. Copies of Change Orders

►IV. EXHIBIT D - TECHNICAL SERVICES

- 1. Authorization for Technical Services
- 2. Date of Substantial Completion of Design
- 3. Information Relative to Procurement Regulations
 - a. Proof of Bid Advertisements
 - b. Copies of Bid Tabulations
- 4. Computation of Basic Engineering Fee
- 5. Index Listing of Technical Services Categories
- 6. Exhibit D (1), Technical Services
- 7. Copies of Engineering Invoices
- 8. Operation and Maintenance Manual Approval Letter

V. EXHIBIT E - LEGAL AND FISCAL SERVICES

- 1. Exhibit E (1), Legal and Fiscal Services
 - a. Legal Exhibits
 - b. Fiscal Exhibits
- 2. Copies of Invoices
 - a. Legal Services
 - b. Fiscal Services
- 3. Exhibit E (3), Executed Legal Fee Breakdowns

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HAMILTON TOWNSHIP MUNICIPAL AUTHORITY

Index(Continued)

1	VI.	EXHIBIT	F	_	ADMINISTRATIVE	SERVICES
7				÷ .		

- 1. Index Listing Categories of Administrative Services
- 2. Exhibit F (1), Administrative Services
- 3. Copies of Invoices

of

VII. EXHIBIT G - ADMINISTRATION AND PRELIMINARY OPERATING EXPENSES

- 1. Index Listing of Payments
- 2. Copies of Cancelled Checks

VIII. EXHIBIT H - PROJECT REQUISITIONS

- 1. Index Listing of Project Requisitions
- 2, Copies of Cancelled Checks

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IV. Exhibit D Technical Services

1. Authorization for Technical Services

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AGREEMENT FOR ENGINEERING SERVICES

This AGREEMENT, made this 26 day of July	, 1978,
by and between HAMILTON TOWNSHIP MUNICIPAL AUTHORITY	, hereafter
referred to as the OWNER, and ARROWOOD, INCORPORATED hereinafter referred to as the ENGINEER:	
The OWNER intends to construct PHASE II OF A SEWERAGE	SYSTEM
in FRANKLIN COUNTY , State of PENNSYLVANIA	which
may be paid for in part with financial assistance from the U acting through the Farmers Home Administration of the United Agriculture, hereinafter referred to as FmHA, pursuant to th and Rural Development Act, (7 U.S.C. 1921 et seq.) and throu Protection Agency, hereinafter referred to as EPA, pursuant	States Department of e Consolidated Farm gh the Environmental
Pollution Control Act as amended (33 U.S.C. 1251 et seq.), a to perform the various professional engineering services req	nd the ENGINEER agrees
and construction of said system, in accordance with applicab requirements (40 CFR Part 35 Subpart E in effect on the date Agreement).	le FmHA and EPA

The ENGINEER and the OWNER agree that this agreement is subject to and shall be performed in accordance with EPA required provisions contained in Appendix C-1 to 40 CFR Part 35 Subpart E in effect on the date of execution of this Agreement.

The ENGINEER and the OWNER recognize and agree this revised AGREEMENT is requested by the FARMERS HOME ADMINISTRATION in order to create uniformity in all engineering agreements involved in the Chambersburg, Pennsylvania Area Sewerage System which are provided financial assistance by the FARMERS HOME ADMINISTRATION. It is further recognized by the ENGINEER and the OWNER this REVISED AGREEMENT is the third (3) revision to an ORIGINAL AGREEMENT for professional engineering services related to this project dated October 22, 1971, and that all of the revisions were made to conform to required and/or requested adherence to RULES, REQUIREMENTS, LAWS, and/or REGULATIONS of FEDERAL REGULATORY and/or FINANCING AGENCIES, and further that in the preparation thereof, certain adjustments have had to be made to compensate for provisions of the original AGREEMENT—and REVISIONS thereto.

WITNESSETH:

That for and in consideration of the mutual covenants and promises between the parties hereto, it is hereby agreed:

SECTION A - ENGINEERING SERVICES

1. After the facilities plan and infiltration/inflow analysis required by Attachment A to this contract have been reviewed by the OWNER, FmHA and EPA, and the OWNER directs the ENGINEER to proceed, the ENGINEER will perform the necessary design surveys, accomplish the detailed design of the project, prepare detailed drawings, specifications and contract documents, and make a final cost estimate based on the final design for the entire system. It is also understood that if subsurface explorations such as borings, soil tests and the like are required to determine amounts of rock excavation or

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foundation conditions, the ENGINEER will furnish supervision of said explorations without additional charge, but the costs incident to such explorations, no matter whether they are performed by the ENGINEER or by others, shall be paid for by the OWNER as set out in Section D hereof.

- 2. The contract documents furnished by the ENGINEER under Section A-1 above shall utilize FmHA and EPA endorsed standard construction contract documents, including the required Supplemental General Conditions, Contract Change Orders and partial payment estimates. All of these documents shall be subject to FmHA and EPA approval.
- 3. Prior to the advertisement for bids, the ENGINEER for each contract will provide not to exceed 10 copies of detailed drawings, specifications, and contract documents for use of the OWNER, FmHA, EPA and the appropriate Federal, State, and local agencies from whom approval of the project must be obtained. The cost of such drawings, specifications, and contract documents shall be included in the basic compensation paid to the ENGINEER.
- 4. The ENGINEER will furnish additional copies of the drawings, specifications and contract documents as required by prospective bidders, material suppliers, and other interested parties, but may charge the OWNER for the actual costs of such copies. Upon award of each contract, the ENGINEER will furnish to the OWNER eight sets of the drawings, specifications and contract documents for execution. The cost of these sets shall be included in the basic compensation paid to the ENGINEER. Original documents, survey notes, tracings, and the like, except those furnished to the ENGINEER by the OWNER, are and shall remain the property of the ENGINEER, subject to the Federal Requirements (40 CFR 30.530).
- 5. The drawings prepared by the ENGINEER under the provisions of Section A-1 above shall be in sufficient detail to permit the actual location of the proposed improvements on the ground. The ENGINEER shall prepare and furnish to the OWNER without any additional compensation, three copies of a map showing the needed construction easements and permanent easements and the land to be acquired. Property surveys, property plats, legal descriptions, and negotiations for land rights shall be accomplished by the OWNER, unless the OWNER requests the ENGINEER to perform these services. In the event the ENGINEER is requested to perform such services and make detailed surveys, the ENGINEER shall be additionally compensated as set out in Section D hereof.
- 6. The ENGINEER will attend public meetings and conferences with the OWNER and representatives of the FmHA, EPA, and other interested parties.
- 7. The ENGINEER will attend the bid opening and tabulate the bid proposals, make an analysis of the bids, and make recommendations for awarding contracts for construction.
- 8. The ENGINEER will check and approve any necessary shop and working drawings furnished by contractors.
- 9. The ENGINEER will interpret the intent of the drawings and specifications to protect the OWNER against defects and deficiencies in construction on the part of the contractors. The ENGINEER will not, however, guarantee the performance by any contractor.

- 10. The ENGINEER will provide horizontal and vertical control in the form of bench mark circuit and two base lines for vertical control to be used by the contractor in staking the construction. Sewer lines shall be staked for laser beam construction by the ENGINEER.
- 11. The ENGINEER will provide general engineering inspection of the work of the contractors as construction progresses. Unless notified by the OWNER in writing that the OWNER will provide for such inspection, the ENGINEER will provide detailed resident construction inspection (RESIDENT INSPECTOR) for the additional compensation set forth in Section C. The ENGINEER does not guarantee the performance of the contractor(s) by the ENGINEER'S performance of such detailed construction inspection. The ENGINEER's undertaking hereunder shall not relieve the contractor of his obligation to perform the work in conformity with the drawings and specifications and in a workmanlike manner; shall not make the ENGINEER an insurer of the contractor's performance, and shall not impose upon the ENGINEER any obligation to see that the work is performed in a safe manner.
- 12. The ENGINEER will cooperate and work closely with FmHA and EPA representatives.
- 13. The ENGINEER will review and approve estimates for progress and final payments.
- 14. The ENGINEER will make final inspection for the OWNER of all construction and a written certification of his final inspection to the OWNER, FmHA and EPA.
- 15. The ENGINEER will provide the OWNER with one set of reproducible record (as-built) drawings, and two sets of prints at no additional cost to the OWNER. Such drawings will be based upon information provided by the RESIDENT INSPECTOR.
- 16. The ENGINEER will prepare notices and advertisement of final payments if required by state statutes.
- 17. The ENGINEER will be available to furnish engineering service and consultations necessary to correct all unforseen project operating difficulties for a period of 1 year after the date of final inspection and acceptance of the facility by the OWNER, FmHA and EPA. This service will include instruction of the OWNER in initial project operation and maintenance but will not include supervision of normal operation of the system. Such consultation and advice shall be furnished without additional charge except for travel and subsistence costs.
- 18. The ENGINEER further agrees to obtain and maintain, at the ENGINEER'S expense, such insurance as will protect him and OWNER from claims under the Workman's Compensation Act and from all claims for bodily injury, death, or property damage which may arise from the negligent performance by the ENGINEER or by the ENGINEER'S employees of the ENGINEER'S functions and services required under this Agreement.
- 19. The ENGINEER further agrees to provide the operation and maintenance manual for waste treatment facilities as required by the Environmental Protection Agency for a fixed price lump-sum amount of EIGHT THOUSAND Dollars (\$ 8,000.00
- 20. The ENGINEER will complete final plans, specifications and contract documents and submit for approval of the OWNER, FmHA and EPA, and all State regulatory agencies within N/A calendar days, after

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notification of acceptance by the OWNER, FmHA and EPA of the facilities plan and upon written authorization from the OWNER unless otherwise agreed to by both parties. If progress upon the above is not accomplished in a timely manner to permit completion within the time period specified, this Agreement may be terminated by the OWNER.

SECTION B - COMPENSATION FOR BASIC ENGINEERING SERVICES

The OWNER shall compensate the ENGINEER for basic engineering services a fixed price lump-sum amount of <u>Three Hundred Sixty-eight Thousand</u>, <u>One Hundred Ninty-five and 24/100 Dollars (\$ 368,195.24).</u>

The basic design services covered by Section A-1 through A-7 and the preliminary work covered by Attachment A to this Agreement, if applicable, shall constitute 80 percent of the total lump-sum amount. The reviews and consultations during construction covered by Section A-8 through A-19, but not including Resident Construction Inspection set forth in Section D hereof, shall constitute 20 percent of the total lump-sum amount. The compensation for basic engineering services shall be payable as follows:

- 1. Monthly or periodic progress payments may be requested and shall be paid when requested based upon the estimated amount and value of the work and services which the ENGINEER certifies he has performed under this Agreement subject to the following cummulative limitations upon total compensation due for basic engineering services:
 - a. Not to exceed 40 percent of the total lump-sum for completion of the services required by Attachment A of this Agreement if applicable.
 - b. Not to exceed 70 percent of the total lump-sum amount after completion and submission of the final drawings, specifications, cost estimates, and contract documents, and the approval of the same by the OWNER, FmHA, and EPA.
 - c. Not to exceed 80 percent of the total lump-sum amount immediately after the construction contracts are awarded.
 - d. Not to exceed 95 percent of the total lump-sum amount for general engineering reviews of the contractor's work and consultation during the construction period.
- 2. Final payment of the balance of the total compensation due, including the lump-sum amount specified in Section A-19, shall be paid upon EPA approval of the Operation and Maintenance Manual pursuant to Section A-19 of this Agreement and completion of all remaining basic engineering services required by Section A of this Agreement and Attachment A to this Agreement, if applicable, except for the services set forth in Section A-17 bereof.

SECTION C - COMPENSATION FOR DETAILED RESIDENT CONSTRUCTION INSPECTION AS SET FORTH IN SECTION A-II

When the Engineer provides detailed resident construction inspection, he will, prior to the preconstruction conference, submit a resume of the construction inspectors' qualifications, anticipated duties and responsibilities for approval by the OWNER, FmHA and EPA. The OWNER agrees to pay the ENGINEER for such service in accordance with the schedule set out below. The ENGINEER

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will render to the OWNER for such services an itemized bill, separate from any other billing, at the end of each month, for compensation for such services performed hereunder during such month, the same to be due and payable by OWNER to the ENGINEER on or before the 10th day of the following month.

Estimated Construction Inspection Schedule - 384 Days @ 584/Day For

- 1. Resident Inspector @ \$25/hour
- 2. Three (3) Assistant Inspectors @ \$16/hour

Estimated total cost of \$224,256 or 3.67% of total estimated construction cost.

SEE SECTION E

SECTION -D- ADDITIONAL ENGINEERING SERVICES

In addition to the foregoing being performed, the following services may be provided UPON WRITTEN AUTHORIZATION OF THE OWNER and approval of the FmHA and EPA:

- 1. Site surveys for sewage treatment works.
- 2. Laboratory tests, well tests, borings, specialized geological, hydraulic or other studies recommended by the ENGINEER.
- 3. Property surveys, detailed descriptions of sites, maps, drawings, or estimates related thereto; assistance in negotiating for land and casement rights.
- 4. Necessary data and filing maps for water rights, water adjudication, and litigation.
- Redesigns ordered by the OWNER after final plans have been accepted by the OWNER, FmHA and EPA.
- 6. Appearances before courts or boards on matters of litigation related to the project.

Payment for the services specified in this Section D shall be as agreed between the OWNER and ENGINEER and approved by FmHA and EPA, prior to commencement of the work. Barring unforeseen circumstances, such payment shall not exceed \$\frac{214,384}{214,384}\$. The ENGINEER will render to the OWNER for such services an itemized bill, separate from any other billing, at the end of each month for compensation for services performed hereunder during such month, the same to be due and payable by OWNER to the ENGINEER on or before the 10th day of the following month.

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SECTION E - APPROVAL BY FMHA

This Agreement shall not become effective until approved by FmHA. Such approval shall be evidenced by the signature of a duly authorized representative of FmHA in the space provided at the end of this Agreement. The approval so evidenced by FmHA shall in no way commit FmHA or EPA to render financial assistance to the OWNER, but in the event such assistance is provided, the approval shall signify that the provisions of this Agreement are consistent with the requirements of FmHA.

ATTACHMENT A (Required only for EPA Step | Projects) Not applicable - this project

In addition to the basic services provided for in Section A of this Agreement, the ENGINEER shall furnish the following engineering services required by EPA (40 CFR Part 35, Subpart E):

- 1. The ENGINEER will conduct preliminary investigations required to determine project feasibility in conformance with an EPA approved plan of study.
- 2. The ENGINEER will prepare a facilities plan and infiltration/inflow analysis following EPA instructions and guides.
- 3. The ENGINEER will prepare preliminary drawings, and cost estimates.
- 4. The ENGINEER will furnish 15 copies of each of the above documents to the OWNER.

	The	services	called	for	in	paragraphs	s l	thro	ough	4	above	shall	be	complete	ed
and	the	facilities	plan	will	be	submitted	to	the	OWNE	R	by				
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The OWNER and ENGINEER agree that t shall be subject to the terms and condit Engineering Services dated	this ATTACHMENT A is incorporated in and tions of the accompanying Agreement for
(Date)	
(SEAL)	OWNER:
	Ву
ATTEST:	Type Name
	Title
Type Name	Date
l'itle	
(SEAL)	ENGINEER:
AFTEST:	By
Type Name	Type Name . Title

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In WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in duplicate on the respective (SEAL) OWNER: By Type Name Harry Fix ATTEST: Title Chairman Type Name Garnet B. Dice Title Secretary Date ENGINEER: (SEAL) By ATTEST: Type Name William L. Attowood Type Name David W. Lake Title President Title Secretary Date July 27, 1978

APPROVED:

FARMERS HOME ADMINISTRATION

Type Name
Title

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SECTION E

Schedule of Rates and Charges for Additional Engineering Services

Personnel	Rate per Hour
Survey	
Four-Man Party Three-Man Party Two-Man Party	\$ 44.00 37.40 27.35
Construction Inspection	
Resident Engineer Resident Inspector Assistant Inspector	\$ 27.50 25.00 16.00
Engineering and General Supervision	
Principal or Officer of Firm Project Engineer Field or Design Engineer Field or Office Assistant Land Surveyor Draftsman Secretary I Secretary II	\$ 30.00 25.00 24.75 17.50 21.50 17.50 9.20 12.80
Legal Appearance in Court	
Full Day Half Day	\$250,00 125.00

Reimbursable Expenses

- 1. Travel from office at \$.15 per mile, or at actual out-of-pocket costs, plus time at above rates for both ways.
- 2. Actual cost of subsistence and lodging.
- 3. Actual cost of long-distance telephone calls; telegrams, express charges, and postage other than ordinary first-class.
- 4. Actual cost of materials required for the job and used in surveying, drafting and allied activities, including printing and reproduction costs.
- 5. Actual cost of special tests and services of special consultants, as referred to in Section D of this agreement.

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AGREEMENT TO AMEND AGREEMENT FOR ENGINEERING SERVICES

THIS AGREEMENT, made this 20 H day of DECEMBER, 1977, by and between HAMILTON TOWNSHIP MUNICIPAL AUTHORITY, hereinafter referred to as the OWNER, and ARROWOOD, INCORPORATED, hereinafter referred to as the ENGINEER:

WITNESSETH:

WHEREAS, the OWNER and the ENGINEER entered into an Agreement dated October 22, 1971, providing for certain engineering services and fees related thereto, and

WHEREAS, it is mutually agreeable by both parties to amend Sections B-2 of the Agreement relating to Compensation for Basic Engineering Services and,

WHEREAS, an Amendment to the Engineering Services Agreement was executed by the OWNER and the ENGINEER on October 22, 1976, to include certain requirements of the United States Environmental Protection Agency (the E.P.A.); and

WHEREAS, in order to comply with Grant Requirements of the United States Environmental Protection Agency [40 CFR Part 35 Subpart E (41 FR 9340)] it is mutually agreeable by both parties to amend the appropriate portions of the October 22, 1971 Agreement and the October 22, 1976 Amendment to comply further therewith.

That for and in consideration of the mutual covenants and promises between the two parties hereto, it is hereby agreed to amend the October 22, 1971 Agreement as follows:

Section B - Compensation for Basic Engineering Services.

Section B-2 be amended to read as follows: A sum together with the specific sum set forth in Section B-1 above equals fifty seven and seven tenths percent (57.7%) of the total compensation based on the revised cost estimate after completion and submission of the preliminary plans, specifications, and revised cost estimates, and the Contract Documents, and the acceptance of the same by the OWNER and the United States Environmental Protection Agency. This sum shall be due on December 31, 1977.

Section B-3 be amended to read as follows: A sum equal to twenty two and three tenths percent (22.3%) of the total compensation based on construction contract costs immediately after the construction contracts are awarded.

II. Section D - Additional Engineering Services.

Section D be amended as follows: The payment for services specified in this Section D shall be in accordance with the schedule set out in Section E in the original contract from the date of the original contract to December 31, 1975. The payment for services specified in this Section D rendered after January 1, 1976, shall be in accordance with the amended Section E contained herein. The ENGINEER will render to OWNER an itemized bill for such services, separate from any other billing, the same to be due and payable by the OWNER to the ENGINEER on or before the tenth day of the following month.

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Personnel Personnel	Rate per Hour
Survey	
Four-Man Party Three-Man Party Two-Man Party	\$ 40.10 33.55 24.75
Construction Inspection	
Resident Engineer Resident Inspector	\$ 27.50 16.00
Engineering and General Supervision	
Principal or Officer of Firm Project Engineer Field or Design Engineer Field or Office Assistant Land Surveyor Draftsman Secretary I Secretary II	\$ 27.50 22.75 22.25 16.00 20.00 16.00 6.00 11.50
Legal Appearance in Court	
Full Day Half Day	\$250.00 125.00

111. The inclusion of Appendix C-1 as appears in the Federal Register, Vol. 41, No. 251 - Wednesday, December 29, 1976, which is as follows:

GENERAL

- (a) the OWNER and the ENGINEER agree that the following provisions shall apply to the E.P.A. grant-eligible work to be performed under this Agreement and that such provisions shall supersede any conflicting provisions of this Agreement.
- (b) the work under this Agreement is funded in part by a grant from the United States Environmental Protection Agency. Neither the United States nor the United States Environmental Protection Agency (hereinafter, "E.P.A.") is a party to this Agreement. This Agreement which covers grant-eligible work is subject to regulations contained in 40 CFR 35.936, 35.937, and 35.939 in effect on the date of execution of this Agreement. As used in these clauses, the words "the date of execution of this Agreement" mean the date of execution of this Agreement and any subsequent modification of the terms, compensation or scope of services pertinent to unperformed work.
- (c) The rights and remedies of the OWNER provided for in these clauses are in addition to any other rights and remedies provided by law under this Agreement.

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2. RESPONSIBILITY OF THE ENGINEER

- (a) The ENGINEER shall be responsible for the professional quality, technical accuracy, timely completion, and the coordination of all designs, drawings, specifications, reports, and other services furnished by the ENGINEER under this Agreement. The ENGINEER shall, without additional compensation, correct or revise any errors, omissions or other deficiencies in his designs, drawings, specifications, reports and other services.
- (b) The ENGINEER shall perform such professional services as may be necessary to accomplish the work required to be performed under this Agreement, in accordance with the Agreement and applicable EPA requirements in effect on the date of execution of this Agreement.
- (c) Approval by the OWNER or EPA of drawings, designs, specifications, reports, and incidental engineering work or materials furnished here-under shall not in any way relieve the ENGINEER of responsibility for the technical adequacy of his work. Neither the OWNER'S nor EPA's review, approval or acceptance of, nor payment for, any of the services shall be construed to operate as a waiver of any rights under this Agreement or of any cause of action arising out of the performance of this Agreement.
- (d) The ENGINEER shall be and remain liable in accordance with applicable law for all damages to the OWNER or EPA caused by the ENGINEER'S negligent performance of any of the services furnished under this Agreement, except for errors, omissions or other deficiencies to the extent attributable to the OWNER, OWNER-furnished data or any third party. The ENGINEER shall not be responsible for any time delays in the project caused by circumstances beyond the ENGINEER'S control. Where new or advanced processes, methods or technology (see 40 CFR 35.908) are recommended by the ENGINEER and are utilized, the ENGINEER shall be liable only for gross negligence to the extent of such utilization.

3. SCOPE OF WORK

The services to be rendered by the ENGINEER shall include all services required to complete the task or Step in accordance with applicable EPA regulations (40 CFR Part 35, Subpart E in effect on the date of execution of this Agreement) to the extent of the scope of work as defined and set out in the engineering services agreement to which these provisions are attached.

4. CHANGES

- (a) the OWNER may, at any time, by written order, make changes within the general scope of this Agreement in the services or work to be performed. If such changes cause an increase or decrease in the ENGINEER'S cost of, or time required for, performance of any services under this Agreement, whether or not changed by any order, an equitable adjustment shall be made and this Agreement shall be modified in writing accordingly. Any claim of the ENGINEER for adjustment under this clause must be asserted in writing within 30 days from the date of receipt by the ENGINEER of the notification of change unless the OWNER grants a further period of time before the date of final payment under this Agreement.
- (b) No services for which an additional compensation will be charged by the ENGINEER shall be furnished without the written authorization of the OWNER.

(c) In the event that there is a modification of EPA requirements relating to the services to be performed under this Agreement subsequent to the date of execution of this Agreement, the increased or decreased cost of performance of the services provided for in this Agreement shall be reflected in an appropriate modification of this Agreement.

5. TERMINATION

- (a) This Agreement may be terminated in whole or in part in writing by either party in the event of substantial failure by the other party to fulfill its obligations under this Agreement through no fault of the terminating party: Provided, That no such termination may be effected unless the other party is given (1) not less than ten (10) calendar days written notice (delivered by certified mail, return receipt requested) of intent to terminate and (2) an opportunity for consultation with the terminating party prior to termination.
- (b) This Agreement may be terminated in whole or in part in writing by the OWNER for its convenience: Provided, That such termination is for good cause (such as for legal or financial reasons, major changes in the work or program requirements, initiation of a new Step) and that the ENGINEER is given (1) not less than ten (10) calendar days written notice (delivered by certified mail, return receipt requested) of intent to terminate and (2) an opportunity for consultation with the terminating party prior to termination.
- (c) If termination for default is effected by the OWNER, an equitable adjustment in the price provided for in this Agreement shall be made, but (1) no amount shall be allowed for anticipated profit on unperformed services or other work, and (2) any payment due to the Engineer at the time of termination may be adjusted to the extent of any additional costs occasioned to the OWNER by reason of the ENGINEER'S default. If termination for default is effected by the ENGINEER, or if termination for convenience is effected by the OWNER, the equitable adjustment shall include a reasonable profit for service or other work performed. The equitable adjustment for any termination shall provide for payment to the ENGINEER for services rendered and expenses incurred prior to the termination, in addition to termination settlement costs reasonably incurred by the ENGINEER relating to commitments which had become firm prior to the termination.
- (d) Upon receipt of a termination action pursuant to paragraphs (a) or (b) above, the ENGINEER shall (1) promptly discontinue all services affected (unless the notice directs otherwise), and (2) deliver or otherwise make available to the OWNER all data, drawings, specifications, reports, estimates, summaries, and such other information and materials as may have been accumulated by the ENGINEER in performing this Agreement, whether completed or in process.
- (e) Upon termination pursuant to paragraphs (a) or (b) above, the OWNER may take over the work and prosecute the same to completion by Agreement with another party or otherwise. Any work taken over by the OWNER for completion will be completed at the OWNER'S risk, and the OWNER will hold harmless the ENGINEER from all claims and damages arising out of improper use of the ENGINEER'S work.
- (f) If, after termination for failure of the ENGINEER to fulfill contractual obligations, it is determined that the ENGINEER had not so failed, the termination shall be deemed to have been effected for the convenience of the OWNER. In such event, adjustment of the price provided for in this Agreement shall be made as provided in paragraph

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6. REMEDIES

Except as may be otherwise provided in this Agreement, all claims, counter-claims, disputes and other matters in question between the OWNER and the ENGINEER arising out of or relating to this Agreement or the breach thereof will be decided by arbitration if the parties hereto mutually agree, or in a court of competent jurisdiction within the State in which the OWNER is located.

7. PAYMENT

- (a) Payment shall be made in accordance with the payment schedule incorporated in this Agreement as soon as practicable upon submission of statements requesting payment by the ENGINEER to the OWNER. If no such payment schedule is incorporated in this Agreement, the payment provisions of paragraph (b) of this clause shall apply.
- (b) Monthly progress payments may be requested by the ENGINEER and shall be made by the OWNER to the ENGINEER as soon as practicable upon submission of statements requesting payment by the ENGINEER to the OWNER. When such progress payments are made, the OWNER may withhold up to ten percent of the vouchered amount until satisfactory completion by the ENGINEER of work and services within a Step called for under this Agreement. When the OWNER determines that the work under this Agreement or any specified task hereunder is substantially complete and that the amount of retained percentages is in excess of the amount considered by him to be adequate for the protection of the OWNER, he shall release to the ENGINEER such excess amount.
- (c) No payment request made pursuant to paragraph (a) or (b) of this clause shall exceed the estimated amount and value of the work and services performed by the ENGINEER under this Agreement, which estimates shall be prepared by the ENGINEER and supplemented or accompanied by such supporting data as may be required by the OWNER.
- (d) Upon satisfactory completion of the work performed hereunder, and prior to final payment under this Agreement for such work, or prior settlement upon termination of the Agreement, and as a condition precedent thereto, the ENGINEER shall execute and deliver to the OWNER a release of all claims against the OWNER arising under or by virtue of this Agreement, other than such claims, if any, as may be specifically exempted by the ENGINEER from the operation of the release in stated amounts to be set forth therein.

8. PROJECT DESIGN

- (a) In the performance of this Agreement, the ENGINEER shall, to the extent practicable, provide for maximum use of structures, machines, products, materials, construction methods, and equipment which are readily available through competitive procurement, or through standard or proven production techniques, methods, and processes, consistent with 40 CFR 35.936-3 and 35.936-13 in effect on the date of execution of this Agreement, except to the extent that advanced technology may be utilized pursuant to 40 CFR 35.908 in effect on the date of execution of this Agreement.
- (b) The ENGINEER shall not, in the performance of the work called for by this Agreement, produce a design or specification such as to require the use of structures, machines, products, materials, construction methods, equipment, or processes which are known by the ENGINEER to be available only from a sole source, unless such use has been adequately

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- (c) The ENGINEER shall not, in the performance of the work called for by this Agreement, produce a design or specification which would be restrictive in violation of Sec. 204(a) (6) of the Federal Water Pollution Control Act (PL 92-500). This statute requires that no specification for bids or statement of work shall be written in such a manner as to contain proprietary, exclusionary, or discriminatory requirements other than those based upon performance, unless such requirements are necessary to test or demonstrate a specific thing, or to provide for necessary interchangeability of parts and equipment, or at least two brand names or trade names of comparable quality or utility are listed and are followed by the words "or equal". With regard to materials, if a single material is specified, the ENGINEER must be prepared to substantiate the basis for the selection of the material.
- (d) The ENGINEER shall report to the OWNER any sole-source or restrictive design or specification giving the reason or reasons why it is considered necessary to restrict the design or specification.
- (e) The ENGINEER shall not knowingly specify or approve the performance of work at a facility which is in violation of Clean Air or Water standards and which is listed by the Director of the EPA Office of Federal Activities pursuant to 40 CFR Part 15.

9. AUDIT: ACCESS TO RECORDS

- (a) The ENGINEER shall maintain books, records, documents and other evidence directly pertinent to performance on EPA grant work under this Agreement in accordance with generally accepted accounting principles and practices consistently applied, and 40 CFR 30.605, 30.805, and 35.935-7 in effect on the date of execution of this Agreement. The ENGINEER shall also maintain the financial information and data used by the ENGINEER in the preparation or support of the cost submission required pursuant to 40 CFR 35.937-6(b) in effect on the date of execution of this Agreement and a copy of the cost summary submitted to the OWNER. The United States Environmental Protection Agency, the Comptroller General of the United States, the Unites States Department of Labor, OWNER, and [the State water pollution control agency] or any of their duly authorized representatives shall have access to such books, records, documents and other evidence for the purpose of inspection, audit and copying. The ENGINEER will provide proper facilities for such access and inspection.
- (b) The ENGINEER agrees to include paragraphs (a) through (e) of this clause in all his contracts and all tier subcontracts directly related to project performance which are in excess of \$10,000.
- (c) Audits conducted pursuant to this provision shall be in accordance with generally accepted auditing standards and established procedures and guidelines of the reviewing or audit agency (ies).
- (d) The ENGINEER agrees to the disclosure of all information and reports resulting from access to records pursuant to paragraphs (a) and (b) above, to any of the agencies referred to in paragraph (a) above, provided that the ENGINEER is afforded the opportunity for an audit exit conference and an opportunity to comment and submit any supporting documentation on the pertinent portions of the draft audit report and that the final audit report will include written comments of reasonable length, if any, of the ENGINEER.
- (e) Records under paragraphs (a) and (b) above shall be maintained and made available during performance on EPA grant work under this Agreement and until three years from date of final EPA grant payment for the project.

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an EPA grant agreement, or litigation, or the settlement of claims arising out of such performance, or costs or items to which an audit exception has been taken, shall be maintained and made available until three years after the date of resolution of such appeal, litigation, claim or exception.

10. PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA

- (a) If the OWNER or EPA determines that any price, including profit, negotiated in connection with this agreement or any cost reimbursable under this Agreement was increased by any significant sums because the ENGINEER or any subcontractor furnished incomplete or inaccurate cost or pricing data or data not current as certified in this certification of current cost or pricing data (EPA Form 5700-41), then such price or cost or profit shall be reduced accordingly and the Agreement shall be modified in writing to reflect such reduction.
- (b) Failure to agree on a reduction shall be subject to the Remedies clause of this Agreement.

11. SUBCONTRACTS

- (a) Any subcontractors and outside associates or consultants required by the ENGINEER in connection with the services covered by this Agreement will be limited to such individuals or firms as were specifically identified and agreed to during negotiations, or as are specifically authorized by the OWNER during the performance of this Agreement. Any substitutions in or additions to such subcontractors, associates, or consultants will be subject to the prior approval of the OWNER.
- (b) The ENGINEER may not subcontract services in excess of thirty percent (30%) of the contract price to subcontractors or consultants without prior written approval of the OWNER.

12. LABOR STANDARDS

To the extent that this Agreement involves "construction" (as defined by the Secretary of Labor), the ENGINEER agrees that such construction work shall be subject to the following labor standards provisions, to the extent applicable:

- (a) Davis-Bacon Act (40 U.S.C. 276a-276a-7);
- (b) Contract Work Hours and Safety Standards Act (40 U.S.C. 327-333);
- (c) Copeland Anti-Kickback Act (18 U.S.C. 874); and
- (d) Executive Order 11246 (Equal Employment Opportunity);

and implementing rules, regulations, and relevant orders of the Secretary of Labor or EPA; and the ENGINEER further agrees that this Agreement shall include and be subject to the "Labor Standards Provisions for Federally Assisted Construction Contracts" (EPA Form 5720-4) in effect at the time of execution of this Agreement.

13. EQUAL EMPLOYMENT OPPORTUNITY

In accordance with EPA policy as expressed in 40 CFR 30.420-5, the ENGINEER agrees that he will not discriminate against any employee or applicant for employment because of race, religion, color, sex, age

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14. UTILIZATION OF SMALL AND MINORITE BUSINESS

In accordance with EPA policy as expressed in 40 CFR 35.936-7, the .ENGINEER agrees that qualified small business and minority business enterprises shall have the maximum practicable opportunity to participate in the performance of EPA grant-assisted contracts and subcontracts.

15. COVENANT AGAINST CONTINGENT FEES

The ENGINEER warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon an Agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bonafide employees. For breach or violation of this warranty the OWNER shall have the right to annul this Agreement without liability or in its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

16. GRATUITIES

- (a) If it is found, after notice and hearing, by the OWNER that gratuities (in the form of entertainment, gifts, or otherwise) were offered or given by the ENGINEER, or any agent or representative of the ENGINEER, to any official, employee or agent of the OWNER, of the State, or of EPA with a view toward securing a contract or securing favorable treatment with respect to the awarding or amending, or the making of any determinations with respect to the performance of this Agreement, the OWNER may, by written notice to the ENGINEER, terminate the right of the ENGINEER to proceed under this Agreement or may pursue such other rights and remedies provided by law or under this Agreement: Provided, That the existence of the facts upon which the OWNER makes such findings shall be in issue and may be reviewed in proceedings pursuant to the Remedies clause of this Agreement.
- (b) In the event this Agreement is terminated as provided in paragraph (a) hereof, the OWNER shall be entitled (1) to pursue the same remedies against the ENGINEER as it could pursue in the event of a breach of the contract by the ENGINEER, and (2) as a penalty in addition to any other damages to which it may be entitled by law, to exemplary damages in an amount (as determined by the OWNER) which shall not be less than three nor more than ten times the costs incurred by the ENGINEER in providing any such gratuities to any such officer or employee.

17. PATENTS

If this Agreement involves research, developmental, experimental, or demonstration work and any discovery or invention arises or is developed in the course of or under this Agreement, such invention or discovery shall be subject to the reporting and rights provisions of Subpart D of 40 CFR Part 30, in effect on the date of execution of this Agreement, including Appendix B of said Part 30. In such case, the ENGINEER shall report the discovery or invention to EPA directly or through the OWNER, and shall otherwise comply with the OWNER'S responsibilities in accordance with said Subpart D of 40 CFR Part 30. The ENGINEER hereby agrees that the disposition of rights to inventions made under this Agreement shall be in accordance with the terms and conditions of aforementioned Appendix B. The ENGINEER shall include provisions appropriate to effectuate the purposes of this condition in all subcontracts involving research, developmental, experimental, or demonstration work.

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- (a) the ENGINEER agrees that any plans, drawings, designs, specifications, computer programs (which are substantially paid for with E.P.A. grant funds), technical reports, operating manuals, and other work submitted with a Step 1 Facilities Plan or with a Step 2 or Step 3 grant application or
- which are specified to be delivered under this Agreement or which are developed or produced and paid for under this Agreement (referred to in this clause as "Subject Data") are subject to the rights in the United States, as set forth in Subpart D of 40 CFR Part 30 and in Appendix C to 40 CFR Part 30, in effect on the date of execution of this Agreement, including the right to use, duplicate and disclose, such Subject Data, in whole or in part, in any manner for any prupose whatsoever, and have others do so. For purposes of this article, "grantee" as used in said Appendix C shall refer to the ENGINEER. If the material
- is copyrightable, the ENGINEER may copyright such, as permitted by said Appendix C, and subject to the rights in the Government as set forth in Appendix C, but the OWNER and the Federal Government reserve a royalty-free, nonexclusive, and irrevocable license to reproduce, publish and use such materials, in whole or in part, and to authorize others to
- do so. The ENGINEER shall include provisions appropriate to effectuate the purpose of this condition in all subcontracts expected to produce copyrightable Subject Data.
- (b) All such Subject Data furnished by the ENGINEER pursuant to this Agreement are instruments of his services in respect of the project. It is understood that the ENGINEER does not represent such Subject Data to be suitable for reuse on any other project or for any other purpose. Any reuse by the OWNER without specific written verification or adaption by the ENGINEER will be at the risk of the OWNER and without liability to the ENGINEER. Any such verification of adaptation will entitle the ENGINEER to further compensation at rates to be agreed upon by the OWNER and the ENGINEER.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in duplicate on the respective date hereinbefore set forth.

	OWNER: HAMILTON TOWNSHIP MUNICIPAL AUTHORITY
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	Date

ENGINEER:
ARROWOOD, INCORPORATED

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AMENDMENT TO ENGINEERING SERVICES AGREEMENT

THIS AMENDMENT to the Engineering Services Agreement, made this 22 or day
1976, by and between the HAMILTON TOWNSHIP MUNICIPAL AUTHORITY
(the Authority) and ARROWOOD, INCORPORATED (the Consulting Engineers):

WHEREAS, the Authority intends to construct a sewerage facility as outlined in Phase II of their Official Plan for Sewerage Facilities, and,

WHEREAS, the Authority entered into an Agreement with the Consulting Engineer on October 22, 1971, to perform the various professional engineering services outlined in the October 22, 1971, Agreement for the design and construction of the sewerage system, and,

WHEREAS, the Authority proposes to finance a portion of the total project costs with a grant-in-aid from the United States Environmental Protection Agency (EPA). The EPA Rules and Regulations (40 CFR § 30.605, 30.805, and 35-935-7) require the Consulting Engineer to maintain books, records, documents and other records directly pertinent to the performance of work on the project and these records shall be available and accessible to various State and Federal government agencies.

WITNESSETH, IT IS MUTUALLY AGREED by and between the HAMILTON TOWNSHIP MUNICIPAL AUTHORITY and ARROWOOD, INCORPORATED, that the Agreement for Engineering Services dated October 22, 1971, be amended as follows:

- 1.0 The Consulting Engineer shall maintain books, records, documents and other evidence directly pertinent to performance on EPA grant work under this Agreement in accordance with accepted professional practice, appropriate accounting procedures and practices, and 40 CFR § 30.605, 30.805, and 35.935-7. The United States Environmental Protection Agency, the Comptroller General of the United States Department of Labor, the Authority, and Pennsylvania Department of Environmental Resources or any of their duly authorized representatives shall have access to such books, records, documents and other evidence for the purpose of inspection, audit and copying. The Consulting Engineer will provide proper facilities for such access and inspection.
- 2.0 The Consulting Engineer agrees to include in all his contracts and all tier subcontracts directly related to project performance which are in excess of \$10,000 the five items of this clause.
- 3.0 Audits conducted pursuant to this provision shall be in accordance with generally accepted auditing standards and formally established audit regulations, procedures and guidelines of the reviewing or audit agency(ies).
- 4.0 The Consulting Engineer agrees to the disclosure of all information and reports resulting from access to records pursuant to paragraphs 1.0 and 2.0, above, to any of the agencies referred to in paragraph 1.0, above. In those cases where the audit concerns the Consulting Engineer, the auditing agency will afford the Consulting Engineer an opportunity for an audit exit conference, and an opportunity to comment on the pertinent portions of the draft audit report. The Consulting Engineer will be provided copies of the formal draft audit report at the time of its transmission. Such transmission will include the written comments, if any, of the audited firm.

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5.0 Records under paragraphs 1.0 and 2.0 above shall be maintained and made available during performance on EPA grant work under this Agreement and until three years from date of final EPA grant payment for the project. In addition, those records which relate to any "Dispute" appeal under an EPA grant agreement, or litigation, or the settlement of claims arising out of such performance, or costs or items to which an audit exception has been taken, shall be maintained and made available until three years after the date of resolution of such appeal, litigation, claim or exception".

IN WITNESS WHEREOF, the Authority and the Consulting Engineer have executed, or caused to be executed by their duly authorized officials, this amendment to the Agreement in duplicate on the respective dates indicated below.

HAMILTON TOWNSHIP MUNICIPAL AUTHORITY

		By: Slarry B & locaffee Si
		Harry B. Stouffer, Sr. Vice-Chairman
ATTESTED:	Harnit B. Dice	
	Secretary	
(SEAL)		Date 19 19 16
		Date
		ARROWOOD, INCORPORATED CONSULTING ENGINEERS
ATTESTED:	David W. Lake Lec.	By: Ausan
		William L. Arrowood, President
		2 h . T. koho
		Date

AGREEMENT FOR ENGINEERING SERVICES

THIS AGREEMENT, made this Rand day of Ontalier, 1971, by and between HAMILTON TOWNSHIP MUNICIPAL AUTHORITY, hereinafter referred to as the OWNER AND ARROWOOD, INCORPORATED, hereinafter referred to as the ENGINEER:

The OWNER intends to construct a Public Sewerage Facility consisting of collection lines, interceptors, and treatment plants as outlined in Phase II of their Official Plan for Sewage Facilities, which may be paid for in part by governmental financial assistance, and the ENGINEER agrees to perform the various professional engineering services required for the design and construction of said systems:

WITNESSETH:

That for and in consideration of the mutual covenants and promises between the parties hereto, it is hereby agreed:

SECTION A - ENGINEERING SERVICES

That the ENGINEER shall furnish basic engineering services as follows:

- The ENGINEER will perform all computations to accomplish the detailed design of the project, prepare detailed plans, specifications and contract documents and make a final cost estimate based on the final design for the entire system. It is understood that in the design and preparation of detailed plans and specifications for such elements as railroad crossings, pumping stations, sewerage treatment plants, and control surveys for photogrammetric mapping, the surveys for such elements shall be performed by the ENGINEER but the ENGINEER shall be additionally compensated THEREFORE AS PROVIDED IN SECTIONS D AND E HEREOF. It is also understood that if subsurface explorations such as borings, soil tests and the like are required to determine amounts of rock excavation or foundation conditions, the ENGINEER will furnish supervision of said explorations without additional charge, but the costs incident to such explorations, no matter whether they are performed by the ENGINEER or by others, shall be paid for by the OWNER as set out in Sections D and E hereof.
- 2. The Contract Documents furnished by the ENGINEER under Section A-1 above shall contain notice to bidders, instructions to bidders, proposal form, contract agreement form, general conditions, and payment and performance bonds. Special conditions and the notice of award and the notice to proceed shall also be prepared by the ENGINEER.
- 3. Prior to the advertisement for bids, the ENGINEER for each contract will provide not to exceed 10 copies of detailed plans, specifications and contract documents for use of the OWNER and the appropriate Federal, State and local agencies from whom approval of the project must be obtained. The cost of not to exceed 10 copies of such plans, specifications, and contract documents shall be included in the basic compensation paid to the ENGINEER.

- 4. The ENGINEER will furnish additional copies of plans, specifications, and contract documents as required by prospective bidders, material suppliers, and other interested parties, but may charge for the actual cost of such copies. Upon award of each contract, the ENGINEER will furnish to the OWNER five sets of the plans, specifications and contract documents for execution, the cost of these sets being included in the basic compensation paid to the ENGINEER. Original documents, survey notes, tracings, and the like, except those furnished to the ENGINEER by the OWNER are and shall remain the property of the ENGINEER.
- 5. The plans prepared by the ENGINEER under the provisions of Section A-1 shall be in sufficient detail to permit the actual location of the proposed improvements on the ground. The ENGINEER shall prepare, and furnish to the OWNER without any additional compensation, three copies of a map showing the needed construction easements and permanent easements, the land to be acquired, and the names of the property owners involved. Property surveys, property plats, legal descriptions, and negotiations for land rights shall be accomplished by the OWNER, unless the OWNER requests the ENGINEER to perform these services. In the event the ENGINEER is requested to perform such services; the ENGINEER shall be additionally compensated as set out in Sections 0 and E hereof.
- 6. The ENGINEER will attend the bid opening and tabulate the bid proposals, make an analysis of the bids, and make recommendations for awarding contracts for construction.
- 7. The ENGINEER will check and approve any necessary shop and working drawings furnished by contractors.
- 8. The ENGINEER will interpret the intent of the plans and specifications to protect the OWNER against defects and deficiencies in construction on the part of the contractors. The ENGINEER will not, however, guarantee the performance by any contractor.
- 9. The ENGINEER will provide horizontal and vertical control for all structures in the form of bench marks or reference points to be used by the contractor in staking the construction.
- 10. The ENGINEER will provide general engineering inspection of the work of the contractors as construction progresses. The ENGINEER will provide detailed construction inspection as provided in Section C hereof upon the written request of OWNER and for the additional compensation set forth in said Section C. The ENGINEER does not guarantee the performance of the contractor(s) by the ENGINEER'S performance of such detailed construction inspection. The ENGINEER'S undertaking hereunder shall not relieve the contractor of his obligation to perform the work in conformity with the plans and specifications and in a workmanlike manner; shall not make the ENGINEER an insurer of the contractor's performance; and shall not impose upon the FEGINEER any obligation to see to it that the work is performed in a safe manner.
- 11. The ENGINEER will review and approve estimates for progress and final payments.
- 12. The ENGINEER will make final inspection of all construction and a written certification of final inspection to the OWNER.

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- 13. The ENGINEER will provide the OWNER with one set of reproducible "as-built" plans, and two sets of prints at no additional cost to the OWNER. Such plans will be based upon information provided by the contractor or OWNER in cases where the resident inspection is not provided by the ENGINEER. In the event the ENGINEER provides resident inspection they shall be based upon the information collected by the ENGINEER.
- 14. The ENGINEER will be available to furnish engineering services and consultations necessary to correct all unforeseen project operating difficulties for a period of one year after the date of final inspection and acceptance of the OWNER in initial project operation and maintenance but will not include supervision of normal operation of the system. Such consultation and advice shall be furnished without additional charge except for travel and subsistence costs as provided in Section E hereof.
- 15. The ENGINEER further agrees to obtain and maintain at the ENGINEER'S expense, such insurance as will protect him and the OWNER from claims under the Workman's Compensation Act and from all claims for bodily injury, death, or property damage which may arise from the negligent performance by the ENGINEER or by the ENGINEER'S employees of the ENGINEER'S functions and services required under this Agreement.

SECTION B. COMPENSATION FOR BASIC ENGINEERING SERVICES

That the OWNER shall compensate the ENGINEER for basic engineering services based on percentages of the Total Actual Construction Costs shown on the Curve set forth in Attachment I which is attached hereto and made a part hereof. The percentage factor applicable shall be obtained from the Curve based on the Total Actual Construction Cost. The appropriate percentage factor shown on the Curve shall be applicable to all compensation computations; provided however, if the total actual construction costs is less than the lowest total actual construction cost figure shown on Attachment I, the OWNER agrees to pay to the ENGINEER a total fee of:

Twelve Thousand Dollars (\$12,000.00)

The Construction costs on which the compensation for basic engineering services is determined shall exclude legal fees, administrative costs, engineering fees, land rights acquisition costs, water costs, and interest expense incurred during the construction period. The compensation for basic engineering services shall be payable as follows:

- 1. The sum of Two Thousand Five Hundred Dollars (\$2,500.00) shall be paid within 30 days after the review and acceptance of this Agreement by OWNER. This sum is in lieu of a retainer and shall apply against the compensation for basic engineering services.
- 2. A sum which together with the specific sum set forth in Section B-1 above equals thirty percent (30%) of the total compensation based on the revised cost estimate after completion and submission of the preliminary plans, specifications, cost estimates, and contract documents, and the acceptance of the same by the OWNER.
- 3. A sum equal to sixty percent (60%) of the total compensation based on construction contracts costs immediately after the construction contracts are awarded.

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4. A sum equal to twenty percent (20%) of the total compensation based on the actual construction cost will be paid on a periodic basis during the construction period on percentage ratios identical to those approved by the ENGINEER as a basis upon which to make partial payments to the contractor(s). However, final payment under this paragraph and of such additional sums as are due the ENGINEER by reason of any necessary adjustments in the payment computations will be in an amount so that the aggregate of all sums paid to the ENGINEER will equal one hundred percent (100%) of the basic compensation determined on actual total construction costs. Final payment shall not be made until it is determined that all services required by this Agreement have been completed except for the services set forth in Section A-14 hereof.

In the event the OWNER for some reason does not construct the project in accordance with the plans, specifications, etc., or revisions thereof, within four (4) years of the date of this Agreement, then the OWNER shall pay to the ENGINEER a percentage fee based upon Attachment I which in turn shall be based upon the estimated construction cost at the time of submission and acceptance by the OWNER of plans of the original project.

SECTION C. COMPENSATION FOR RESIDENT INSPECTION

If the OWNER requests in writing the ENGINEER will provide detailed, full-time, resident, construction inspection, and the OWNER agrees to pay the ENGINEER for such service in accordance with the schedule set out in Section E hereof. The ENGINEER will render to OWNER for such services an itemized bill, separate from any other billing, at the end of each month for compensation for such services performed hereunder during such month, the same to be due and payable by OWNER to the ENGINEER on or before the 10th day of the following month.

SECTION D. ADDITIONAL ENGINEERING SERVICES

In addition to the basic engineering services, described in Section A, the following services may be required:

- 1. Site surveys for water treatment plants, sewage treatment works, dams and reservoirs upon written authorization by OWNER.
- 2. Laboratory tests, well tests, borings, specialized geological, hydraulic, or other studies recommended by the ENGINEER.
- 3. Photogrammetric mapping of the project areas recommended by the ENGINEER.
- 4. Property surveys, descriptions of needed land and easement rights and maps, plans, or estimates related thereto; assistance in negotiating for land and easement rights upon written authorization by OWNER.
- Necessary data and filing maps regarding litigation.
- 6. Redesigns ordered by the OWNER after final plans have been accepted by the OWNER.
- 7. Appearance before courts or boards on matters of litigation related to the project.

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Payment for the services specified in this Section D shall be in accordance with the schedule set out in Section E hereof. The ENGINEER will render to OWNER for such services an itemized bill, separate from any other billing, at the end of each month for compensation, for services performed hereunder during such month, the same to be due and payable by OWNER to the ENGINEER on or before the 10th day of the following month.

SECTION E. SCHEDULE OF RATES AND CHARGES FOR ADDITIONAL ENGINEERING SERVICES

PERSONNEL	RATE PER HOUR
SURVEY	
Four-man party	\$26.00
Three-man party	20.00
Two-man party	16.00
CONSTRUCTION INSPECTION	
Resident Engineer	\$20.00
Resident Inspector	7.00
ENGINEERING AND GENERAL SUPERVISOR	
Principal or Officer of Firm	\$20.00
Project Engineer	20.00
Field or Design Engineer	12.00
Field or Office Assistant	8.00
Land Surveyor	10.00
LEGAL APPEARANCE IN COURT	
Full Day	\$200.00
Half Day	100.00

REIMBURSABLE EXPENSES

- 1. Travel from office at \$.12 per mile, or at actual out-of-pocket cost, plus time at above rates for both ways. (In excess of 30 mile radius of office)
- 2. Actual cost of subsistence and lodging.
- 3. Actual cost of long-distance telephone calls, telegrams, express charges, and postage other than ordinary first class.
- 4. Actual cost of materials required for the job and used in surveying, drafting, and allied activities, including printing and reproduction costs.
- 5. Actual cost of special tests and services of special consultants, as referred to in Section D of this Agreement.

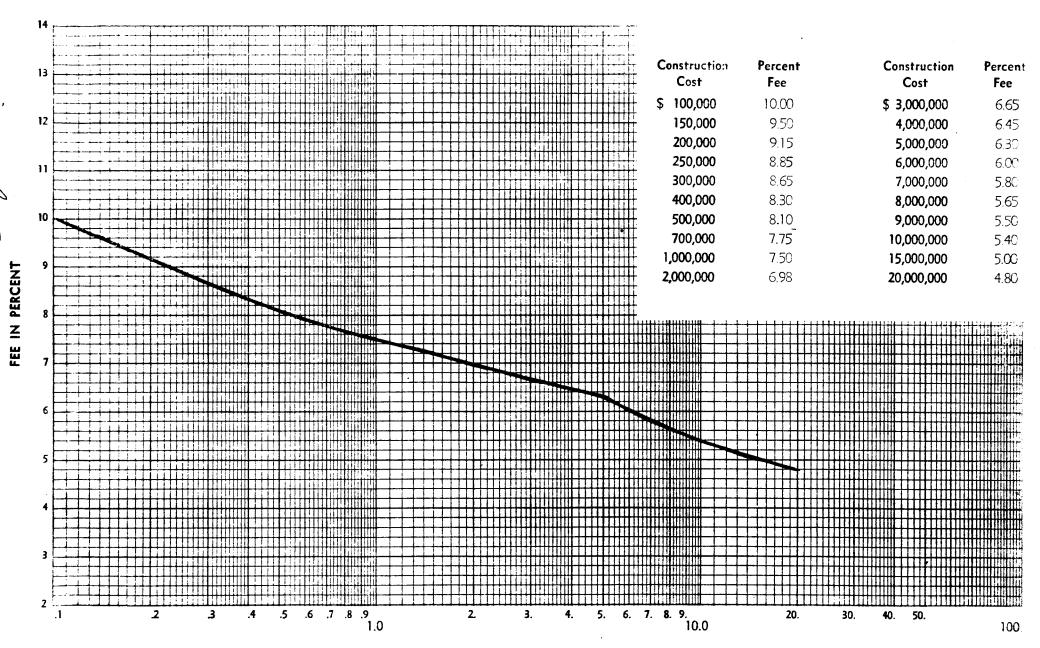
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IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in duplicate on the respective dates indicated below.

ATTESTED: Navy B Stouffe Si	OWNER: HAMILTON TOWNSHIP MUNICIPAL AUTHORITY BY: Sockwell, Chairman Malta B. Milla October 22, 1971 Date
ATTESTED: Mexaeth F. Loe	ENGINEER: ARROWOOD, INCORPORATED BY: Milliam Carrellina Date

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CONSTRUCTION COST IN MILLIONS

CURVE TO BE USED FOR BASIC SERVICES (SEE SECTION B)

ATTACHMENT I

IV. Exhibit D Technical Services

2. Date of Substantial Completion of Design

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IV. EXHIBIT D

2. Information required to document compliance with Part 35, Appendix D, Section B.5 of the December 17, 1975 Procurement Regulations.

Dates of Substantial Completion of Design:

May 12, 1978 - Contract No. Alternate No. 1

May 12, 1978 - Contract No. 5, Alternate 5B

All design work was essentially continuous from the start of design to bidding and the bid openings occurred within one year after substantial completion of design.

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IV. Exhibit D Technical Services

- 3. Information relative to Procurement Regulations
 - a. Proof of Advertisement